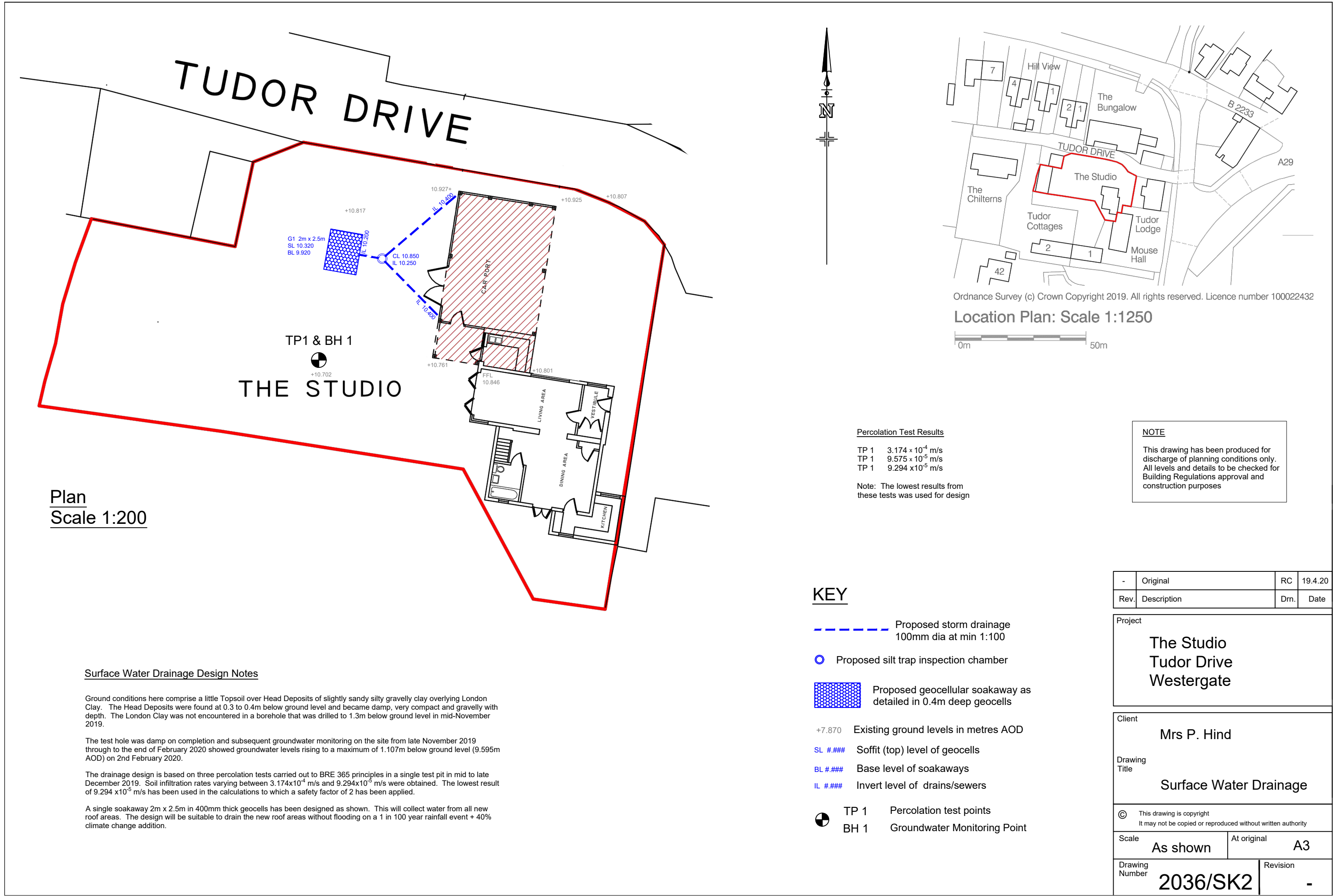




Plan
Scale 1:200

Surface Water Drainage Design Notes

Ground conditions here comprise a little Topsoil over Head Deposits of slightly sandy silty gravelly clay overlying London Clay. The Head Deposits were found at 0.3 to 0.4m below ground level and became damp, very compact and gravelly with depth. The London Clay was not encountered in a borehole that was drilled to 1.3m below ground level in mid-November 2019.

The test hole was damp on completion and subsequent groundwater monitoring on the site from late November 2019 through to the end of February 2020 showed groundwater levels rising to a maximum of 1.107m below ground level (9.595m AOD) on 2nd February 2020.

The drainage design is based on three percolation tests carried out to BRE 365 principles in a single test pit in mid to late December 2019. Soil infiltration rates varying between 3.174x10⁻⁴ m/s and 9.294x10⁻⁵ m/s were obtained. The lowest result of 9.294 x10⁻⁵ m/s has been used in the calculations to which a safety factor of 2 has been applied.

A single soakaway 2m x 2.5m in 400mm thick geocells has been designed as shown. This will collect water from all new roof areas. The design will be suitable to drain the new roof areas without flooding on a 1 in 100 year rainfall event + 40% climate change addition.

KEY

- Proposed storm drainage 100mm dia at min 1:100
- Proposed silt trap inspection chamber
- Proposed geocellular soakaway as detailed in 0.4m deep geocells
- Existing ground levels in metres AOD
- Soffit (top) level of geocells
- Base level of soakaways
- Invert level of drains/sewers
- TP 1 Percolation test points
- BH 1 Groundwater Monitoring Point



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Location Plan: Scale 1:1250



Percolation Test Results

TP 1	3.174 x 10 ⁻⁴ m/s
TP 1	9.575 x 10 ⁻⁵ m/s
TP 1	9.294 x 10 ⁻⁵ m/s

Note: The lowest results from these tests was used for design

NOTE

This drawing has been produced for discharge of planning conditions only. All levels and details to be checked for Building Regulations approval and construction purposes

-	Original	RC	19.4.20
Rev.	Description	Drm.	Date
Project			
The Studio Tudor Drive Westergate			
Client			
Mrs P. Hind			
Drawing Title			
Surface Water Drainage			
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Scale		At original	
As shown		A3	
Drawing Number		Revision	
2036/SK2		-	